

Title (en)

METHODS AND MECHANISMS FOR SURGE AVOIDANCE IN MULTI-STAGE CENTRIFUGAL COMPRESSORS

Title (de)

VERFAHREN UND MECHANISMEN ZUR VERMEIDUNG VON DRUCKSTÖßEN IN MEHRSTUFIGEN ZENTRIFUGALVERDICHTERN

Title (fr)

PROCÉDÉS ET MÉCANISMES D'ÉVITEMENT DE POMPAGE DANS DES COMPRESSEURS CENTRIFUGES À PLUSIEURS ÉTAGES

Publication

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Application

EP 20199672 A 20201001

Priority

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- US 202016997221 A 20200819

Abstract (en)

A turbomachine includes a casing having an inlet end opposite an outlet end along a longitudinal axis of the casing; a shaft assembly provided within the casing, the shaft assembly extending from the inlet end to the outlet end; a plurality of rotating impellers extending radially outward from the shaft assembly; and a communication channel defined between two adjacent impellers to permit a backflow of fluid from a diffuser channel of a downstream impeller to a return channel of an adjacent upstream impeller.

IPC 8 full level

F04D 17/12 (2006.01); **F04D 27/02** (2006.01); **F04D 29/42** (2006.01)

CPC (source: CN EP KR US)

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Citation (search report)

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- [X] JP H0254400 U 19900419
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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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EP 3805565 A1 20210414; **EP 3805565 B1 20231129**; **EP 3805565 C0 20231129**; CN 112696364 A 20210423; CN 112696364 B 20240220; JP 2021060033 A 20210415; KR 20210041484 A 20210415; US 11255338 B2 20220222; US 2021102546 A1 20210408

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